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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/923,554	08/07/2001	James William Otter	60246-145/8674	6915

26096 7590 11/14/2003

CARLSON, GASKEY & OLDS, P.C.  
400 WEST MAPLE ROAD  
SUITE 350  
BIRMINGHAM, MI 48009

EXAMINER

JACKSON, MONIQUE R

ART UNIT	PAPER NUMBER
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1773

DATE MAILED: 11/14/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/923,554

Applicant(s)

OTTER, JAMES WILLIAM

Examiner

Monique R Jackson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 02 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The amendment filed 9/2/03 has been entered. New claims 12-14 have been added. Claims 1-14 are pending in the application.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. The terminal disclaimer filed on 9/9/03 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of USPN 6,527,906, has been reviewed and is accepted. The terminal disclaimer has been recorded.
4. The obviousness double patenting rejection recited in the prior office action has been obviated by the timely filing of a proper terminal disclaimer.

### *Claim Rejections - 35 USC § 103*

5. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bentley (USPN 4,738,307) in view of Audett et al (USPN 5,331,049) or Prejean et al generally for the reasons recited in the prior office action and restated below.

Bentley teaches a heat condensing heat exchanger and a method of making said heat exchanger wherein a polypropylene film is **adhesively adhered to a metal surface** (Abstract.) Bentley does not specifically teach the type of adhesive utilized or that the adhesive is an ethylene terpolymer having an organosilicone functional group that is cured by water as instantly claimed. However, one having ordinary skill in the art at the time of the invention would have been motivated to utilize any suitable adhesive having metal adhesion and heat resistance or other desired properties for use in a heat exchanger wherein Audett et al and Prejean et al both teach that the water-curable ethylene terpolymer hot melt adhesive comprising an organosilicone

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functional group as instantly claimed provides advantages over other adhesives including curing at ambient temperatures with moisture or water and also provides excellent heat resistance and **enhanced adhesive strength to metallic substrates** when coated onto the substrate (Audett et al-Abstract, Col. 1-Col. 2, line 52; Prejean-Abstract, Col. 1.) Therefore, one having ordinary skill in the art at the time of the invention would have been motivated to utilize the water-curable ethylene terpolymer taught by Audett et al or Prejean et al for the invention taught by Bentley wherein the step of applying a rolling pressure is an obvious and conventional method of adhesively laminating two substrates and would have been obvious to one skilled in the art. Further, in terms of providing moisture or water to cure the adhesive, it would have been obvious to one skilled in the art at the time of the invention to determine the optimum method of providing the moisture or water to the adhesive, whether externally or internally within the structure to be bonded, to provide the desired amount of water to cure the adhesive. With respect to Claim 8, though Bentley does not teach that the polypropylene film is polar, it is well known and conventional in the art to subject a polypropylene film to a surface treatment such as corona discharge treatment to provide polar groups on the film surface to enhance adhesion of the film to a subsequently applied adhesive or coating and hence one having ordinary skill in the art at the time of the invention would have been motivated to subject the polypropylene film to an appropriate surface treatment such as corona discharge treatment to provide adhesion-enhancing polar groups on the film surface. With respect to Claims 13 and 14, though the combined references do not teach an adhesive layer thickness as instantly claimed, it is well established in the art that the thickness of an adhesive layer is a result-effective variable affecting the mechanical properties, particularly the adhesion strength between the two substrates to be

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adhered, and hence, one skilled in the art at the time of the invention would have been motivated to determine the optimum adhesive layer thickness to provide sufficient adhesion strength while conserving the adhesive material.

### ***Response to Arguments***

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992.) The Examiner also notes that applicant's arguments appear to address the references individually, and one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, the primary reference, Bentley teaches a heat condensing heat exchanger and a method of making said heat exchanger wherein a polypropylene film is **adhesively adhered to a metal surface** but does not teach the instantly claimed adhesive. However, one having ordinary skill in the art at the time of the invention would have been motivated to utilize any suitable adhesive having metal adhesion and heat resistance or other desired properties for use in a heat exchanger wherein Audett et al and Prejean et al both teach that the water-curable ethylene terpolymer hot melt adhesive comprising an organosilicone functional group as instantly claimed provides advantages over other adhesives including curing at ambient temperatures with moisture or water

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and also provides excellent heat resistance and **enhanced adhesive strength to metallic substrates**. Hence, though the secondary references do not specifically teach utilize the adhesive to adhere a polypropylene film to a heat exchanger, the secondary references do provide motivation to utilize the adhesive materials with metallic substrate given that the adhesives provide enhanced adhesive strength to metallic substrates and also provide excellent heat resistance. Therefore, given the teachings of Bentley regarding a polypropylene film adhesively adhered to a metal substrate of the heat exchanger, the Examiner maintains that one skilled in the art would have been motivated to utilize the adhesives taught by the secondary references given the disclosed adhesive characteristics with regards to metallic substrates and heat resistance.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R Jackson whose telephone number is 703-308-0428.

The examiner can normally be reached on Mondays-Thursdays, 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul J Thibodeau can be reached on 703-308-2367. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.



Monique R. Jackson  
Patent Examiner  
Technology Center 1700  
November 12, 2003